

Claims

What is claimed:

1. A method comprising enhancing intelligibility of speech within a received speech signal by adjusting the amplitude of samples within a frame of the signal by an automatic gain factor derived a long term peak value.

2. The method according to claim 1, wherein the automatic gain factor is correlated to a noise factor.

3. The method according to claim 1, wherein the automatic gain factor is related to the difference between a constant level value and the long term peak value.

4. The method according to claim 1, further comprising adjusting the amplitude of the samples within a frame of the signal by a dynamic range compression gain factor.

5. The method according to claim 4, wherein the dynamic compression gain factor is correlated to a noise factor.

6. The method according to claim 4, wherein the dynamic compression gain factor is related to the difference between a long term peak value and an instantaneous peak value.

7. The method according to claim 6, wherein the dynamic compression ("DRC") gain factor is adjusted in proportion to a maximum DRC gain value divided by a delta L value.

8. The method according to claim 4, further comprising adjusting the amplitude of samples within a second consecutive frame using a target gain factor, wherein a target gain factor is defined as the sum of a frame's automatic gain factor and DRC gain factor.

5 9. The method according to claim 8, further comprising smoothing the target gain factor.

10 10. The method according to claim 9, wherein smoothing of the second target gain factor is performed by taking an average between the target gain factors of the first and second frames.

10 11. A computer readable medium comprising instructions when executed by a processor cause said processor to enhance intelligibility of speech within a received speech signal by adjusting the amplitude of samples within a frame of the signal by an automatic gain factor derived a long term peak value.

15 12. The computer readable medium of claim 11, further comprising instructions when executed cause the processor to adjust the automatic gain factor in relation to a noise factor.

20 13. The computer readable medium of claim 12, further comprising instructions when executed cause the processor to adjust the automatic gain factor is relation to the difference between a constant level value and the long term peak value.

25 14. The computer readable medium of claim 11, further comprising instructions when executed cause the processor to adjust the amplitude of the samples within a frame of the signal by a dynamic range compression gain factor.

15. The computer readable medium of claim 14, further comprising instructions when executed cause the processor to calculate the dynamic compression gain factor in relation to a noise factor.

16. The computer readable medium of claim 15, further comprising instructions when executed cause the processor to calculate the dynamic compression gain factor in relation to the difference between a long term peak value and an instantaneous peak value.

17. The computer readable medium of claim 16, further comprising instructions when executed cause the processor to adjust the dynamic compression ("DRC") gain factor in proportion to a maximum DRC gain value divided by a delta L value.

18. The computer readable medium of claim 14, further comprising instructions when executed cause the processor to adjust the amplitude of samples within a second consecutive frame using a target gain factor, wherein a target gain factor is defined as the sum of a frame's automatic gain factor and DRC gain factor.

19. The computer readable medium of claim 18, further comprising instructions when executed cause the processor to smooth the target gain factor.

20. The computer readable medium of claim 19, further comprising instructions when executed cause the processor to smooth the second target gain factor by taking an average between the target gain factors of the first and second frames.